

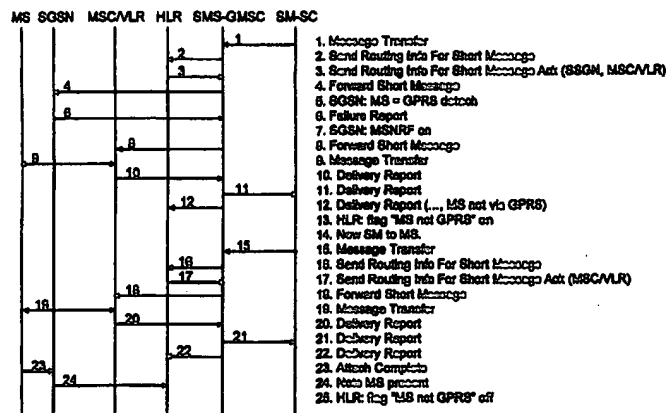
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INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(51) International Patent Classification ⁶ : H04Q 7/22		A3	(11) International Publication Number: WO 98/44640
			(43) International Publication Date: 8 October 1998 (08.10.98)
(21) International Application Number: PCT/FI98/00294		(81) Designated States: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, GW, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, ARIPO patent (GH, GM, KE, LS, MW, SD, SZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG).	
(22) International Filing Date: 1 April 1998 (01.04.98)		Published With international search report.	
(30) Priority Data: 971381 3 April 1997 (03.04.97) FI		(88) Date of publication of the international search report: 7 January 1999 (07.01.99)	
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(54) Title: DELIVERY OF SHORT MESSAGES IN A PACKET RADIO NETWORK



(57) Abstract

The invention relates to delivery of short messages to mobile stations and particularly to delivery of short messages in mobility-supporting packet radio networks that use a mobile communications network as an access network, to a dual-mode mobile station in a situation where the mobile station is not reachable in the packet radio network. The object of the invention is to minimize unnecessary signalling. The invention is based on the fact that parameters controlling the network elements are inserted into the signalling messages and a flag indicating the state of the mobile station is inserted into the home location register. In the method and radio network of the invention, the signalling messages may contain parameters by means of which 1) delivery of a short message through the secondary network is prevented, 2) information on the fact that an attempt was made to reach the mobile station but the attempt was not successful is sent to the node of the secondary network, 3) the node of the secondary network is prevented from informing the home location register of the mobile station of the attach of the mobile station to the network, 4) information is sent to the home location register on the fact that the mobile station cannot be reached through the primary network, and 5) information is sent to the gateway mobile switching center for short message service on the fact that the mobile station can be reached through the primary network even though the short message was delivered through the secondary network.

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INTERNATIONAL SEARCH REPORT

International application No.

PCT/FI 98/00294

A. CLASSIFICATION OF SUBJECT MATTER		
IPC6: H04Q 7/22 According to International Patent Classification (IPC) or to both national classification and IPC		
B. FIELDS SEARCHED		
Minimum documentation searched (classification system followed by classification symbols)		
IPC6: H04Q		
Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched		
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Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)		
C. DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	WO 9416532 A1 (NOKIA TELECOMMUNICATIONS OY), 21 July 1994 (21.07.94), page 13, line 19 - page 15, line 15, figures 4-10 --	1-18
A	WO 9603843 A2 (NOKIA TELECOMMUNICATIONS OY), 8 February 1996 (08.02.96), Fig. 4-7 and adherent text --	1-18
A	WO 9512292 A1 (TELEFONAKTIEBOLAGET LM ERICSSON), 4 May 1995 (04.05.95), page 7, line 4 - line 11 --	1-18
A	WO 9326131 A1 (NOKIA TELECOMMUNICATIONS OY), 23 December 1993 (23.12.93) --	1-18
<input checked="" type="checkbox"/> Further documents are listed in the continuation of Box C. <input checked="" type="checkbox"/> See patent family annex.		
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Date of the actual completion of the international search		Date of mailing of the international search report
29 October 1998		29 -10- 1998
Name and mailing address of the ISA/ Swedish Patent Office Box 5055, S-102 42 STOCKHOLM Facsimile No. +46 8 666 02 86		Authorized officer Inger Löfving Telephone No. +46 8 782 25 00

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PCT/FI 98/00294

C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

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A	GB 2244409 A (TELECOM SECURICOR CELLULAR RADIO LIMITED), 27 November 1991 (27.11.91) -- -----	1-18

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Information on patent family members

05/10/98

International application No.

PCT/FI 98/00294

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